Pest Update (March 17, 2010)

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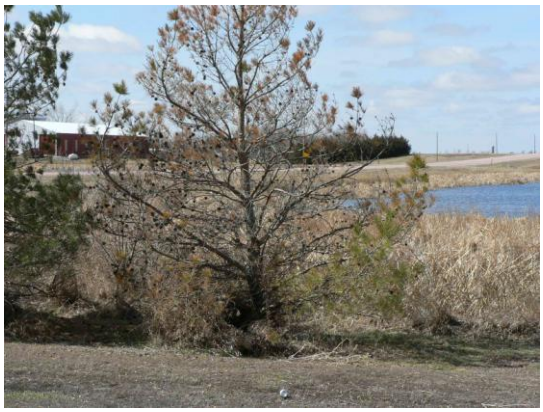
http://www.state.sd.us/doa/Forestry/educational-information/Pest-Alert-Archives.htm.

In this issue **pg**

Why is my yard covered with pine twigs? I have had several calls and visits regarding this strange occurrence and the culprit in all cases have been tree squirrels. These small rodents will nip the ends of pines and spruce (as well as maples and elms) during late winter. If you pick up any of the tips scattered on your lawn you'll notice that the cut at the base of the twig is cleanly cut at a sharp angle. There is not much that can be done

to control this problem since you don't see the problem until the lawn is littered with twigs. Fortunately the "pruning" does not usually seriously injure the tree.

We are also seeing a lot of branch stripping on basswoods and hackberries. For some reason squirrels seem to enjoy feeding on the inner bark of these trees at this time of year (most likely due to the higher sugar content). Usually the feeding does not extend completely around the branch but sometimes these branches are girdled and die later in the summer. Unfortunately, there is not much that can be done to prevent it.



Flooding is becoming a concern in many parts of South Dakota. The flood waters are still rising in many areas and trees are standing in flowing water or at least very saturated soils. How much damage will this cause? The prognosis for flooding injury depends upon the species, the water condition and the duration. Cottonwoods and willows, particularly young trees, can tolerate flooding better and longer than most other species but even these trees can be affected if the flooding extends into the growing season. At the opposite extreme most evergreens and fruit trees have a very low tolerance to flooding and even several days of saturated soils can lead to decline or death (as seen in the above picture). Most deciduous trees can survive brief periods of flooding, a week or so, if the water is cold and moving and the waters recede before the trees break bud so if our flooding ends within the next couple of weeks the injury may be minimal. However, if the flooding or waterlogged soils persist until the trees begin their shoot and leaf expansion then even trees species moderately tolerant of flooding may suffer dieback or death as a consequence of the roots dying from the lack of available oxygen.

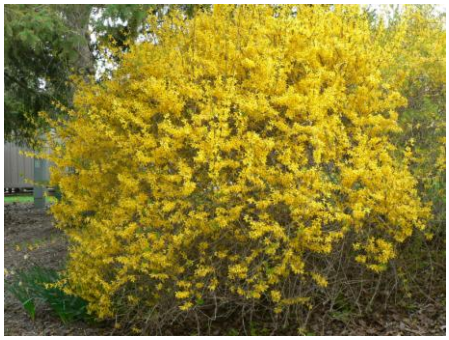
<u>The trees most tolerant of flooding include</u>:
Eastern and Plains cottonwood
Green ash
Honeylocust
Silver maple
Willow

The trees that are moderately tolerant of flooding include:
American elm
Boxelder
Bur oak
Hackberry
Pear
Quaking aspen

The trees least tolerant of flooding include:
Apples and crabapples
Basswood
Black walnut
Eastern redcedar and Rocky Mountain juniper
hawthorn
Paper birch
Pines
Red oak
Siberian elm
Spruce (including both Black Hills and Colorado spruce)
Sugar maple

E-samples

Craig, our urban forester in Watertown, sent this picture of declining spruces. The trees are near the Big Sioux River. Spruce, as mentioned earlier, are not very tolerant of poorly drained soils and planting on such sites often result in trees that exhibit poor growth and much needle shredding. Generally the lowest trees are the ones that begin to decline first so a pattern to the symptoms can easily be detected. I can usually find pathogens or insects associated with the decline but the predisposing factor is the poor site. Spruces are noted to be very fussy about site; either too wet or too dry they begin to decline quickly.



Not a sample but a question from a reader last week regarding shrub pruning. She wanted to know which shrubs can be pruned in the spring before they bloom. Our spring flowering shrubs form their flower buds during the previous growing season so the flowers we will see on the forsythias this April were formed

back in 2009. Heavily pruning these shrubs now will result in the removal of many of their flower buds hence a very limited floral display this spring.

It is usually best to delay pruning of spring flowering shrubs until just after they bloom. This will provide them with the time to develop flower buds for the next season. Summer flowering shrubs can be pruned now as their flower buds have not yet formed but will develop this spring for summer blooms.

Some of our common spring flowering shrubs are:

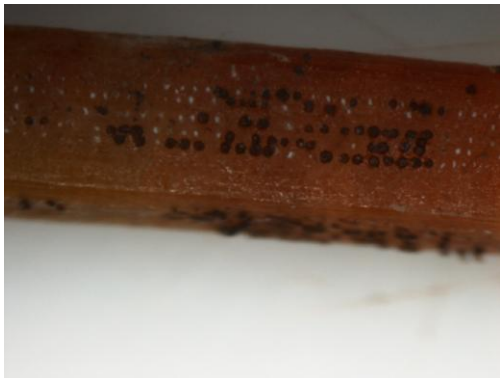
Bridal wreath spirea
Clove currant
Common lilac
Dwarf Korea lilac
Forsythia
Garland spirea
Vanhoutte spirea
Weigela

Some of our common summer flowering shrubs are:

Bush-honeysuckle
Bumalda spirea
Japanese spirea
Late lilac
Panicle hydrangea
Potentilla
Smokebush
Smooth hydrangea

Samples received

Faulk County **What is going wrong with this Colorado spruce? The needles are turning color.**



I was able to find an abundance of fruiting bodies to the fungus *Rhizophera kalkhoffii*, the pathogen responsible for Rhizophera needlecast. The typically symptoms of this common disease are the younger needles turning color, often a purple though I have seen them also become a pale yellow at times. Eventually these needles are cast, hence the name needlecast, and the tree develops a very thin and open appearance. There must be some tolerance of this disease among spruce, I rarely see it in Black Hills or

Norway spruce, and even within Colorado spruce it is common to find a heavily infected tree standing adjacent to ones that appear completely healthy.

The management of the disease involves two applications of a fungicide containing chlorothalonil, the first applied when the new shoots are about ½ inch long and the second about three weeks later. You'll need to provide treatments for at least two years in a row to begin to see any benefit to the applications.

While the disease is common, there are several other pathogens that will produce similar symptoms and even fruiting bodies so it is always a good idea to provide a sample for positive identification of the stressor.

Gregory County **Why are these pines turning brown? One started turning last year and is now dead and another has branches turning brown.**

There are a number of reasons for the decline of Scotch pines In our area. One problem we frequently see south of I-90, and particularly in the counties bordering Nebraska, is pine wilt disease. The symptoms usually begin in mid summer with the foliage yellowing then browning. The tree usually dies by that fall. A very small nematode called the pine wood nematode is responsible for the rapid decline and death of the tree. Pine wilt disease is common on exotic pines, our native species appear very tolerant of the nematode, so we often see Scotch and Austrian pines die from the infection. The disease has been identified for several decades now in the United States but for some reason has become more prevalent in the past decade with states such as Nebraska losing thousands of trees. We have seen very high mortality of Scotch and Austrian pines in Bennett, Fall River, Shannon and Charles Mix Counties. The sample submitted was too small to extract the nematode so I cannot be certain that this is the reason for these trees' decline. It may also be diplodia tip blight as I found some symptoms commonly associated with this disease (though no signs) on the sample. I will look at making a stop in April to collect better samples.